
 W O R L D
 (TM)

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Mpurch_pp protein - protein database search, using Smith-Waterman algorithm
 Run on: Sat May 13 08:52:23 2000; MasPar time 3.67 Seconds
 Tabular output not generated. 212.807 Million cell updates/sec

Title: >US-09-331-631-23
 Description: (1-33) from US09331631.pep
 Perfect Score: 287
 Sequence: 1 RSGRGECRROCLRRHGGPWEYDPCMRRCRRG 33

Scoring table: PAM 150
 Gap 11

Searched: 188963 seqs, 23686106 residues

Post-processing: Minimum Match 0%
 Listing first 45 summaries

Database: a-geneseq35
 1:geneseqp

Statistics: Mean 23.079; Variance 98.498; scale 0.234

Pred. No. is the number of results predicted by chance to have a
 score greater than or equal to the score of the result being printed,
 and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	287	100.0	33	1	W62836	3.17e-18
2	287	100.0	593	1	W62835	3.17e-18
3	269	93.7	35	1	R21079	1.63e-15
4	113	39.4	666	1	W62828	2.95e-02
5	109	38.0	625	1	W62830	6.47e-02
6	107	37.3	666	1	W62832	9.56e-02
7	88	30.7	590	1	W62832	3.61e+00
8	87	30.3	188	1	W00726	4.35e+00
9	87	30.3	188	1	W04829	4.35e+00
10	87	30.3	188	1	W80493	4.35e+00
11	86	30.0	525	1	W62831	5.25e+00
12	86	30.0	556	1	R20181	5.25e+00
13	84	29.3	132	1	R28990	7.60e+00
14	84	29.3	215	1	R28989	7.60e+00
15	80	27.9	179	1	W86320	1.58e+01
16	80	27.9	184	1	W86320	1.58e+01
17	80	27.9	189	1	W86319	1.58e+01
18	80	27.9	194	1	W86318	1.58e+01
19	80	27.9	201	1	W86316	1.58e+01
20	80	27.9	221	1	W07611	1.58e+01
21	80	27.9	221	1	W86305	1.58e+01
22	80	27.9	388	1	Y04898	1.58e+01
23	76	26.5	110	1	Y04944	3.27e+01

24	74	25.8	55	1	W80489	Murine vascular endoth	4.68e+01
25	74	25.8	55	1	W04825	Vascular endothelial g	4.68e+01
26	74	25.8	145	1	W86213	Human VEGF-B truncated	4.68e+01
27	74	25.8	147	1	W86212	Human VEGF-B truncated	4.68e+01
28	74	25.8	150	1	W86211	Human VEGF-B truncated	4.68e+01
29	74	25.8	152	1	W86210	Human VEGF-B truncated	4.68e+01
30	74	25.8	155	1	W86209	Human VEGF-B truncated	4.68e+01
31	74	25.8	160	1	W86208	Human VEGF-B truncated	4.68e+01
32	74	25.8	167	1	W86234	Human VEGF-B full leng	4.68e+01
33	74	25.8	188	1	W00864	Murine VRF167.	4.68e+01
34	74	25.8	188	1	W04826	Heart vascular endoth	4.68e+01
35	74	25.8	188	1	W80490	Murine vascular endoth	4.68e+01
36	74	25.8	188	1	W86201	Human vascular endoth	4.68e+01
37	74	25.8	195	1	W04827	Heart vascular endoth	4.68e+01
38	74	25.8	195	1	W80491	Murine vascular endoth	4.68e+01
39	72	25.1	125	1	R28991	Encoded by clone TGR-C	6.68e+01
40	71	24.7	3025	1	P93284	Sequence of clone HIV-	7.98e+01
41	70	24.4	51	1	W33694	Mouse protamine 1.	9.51e+01
42	70	24.4	176	1	W33695	Mouse protamine 1 fuse	9.51e+01
43	70	24.4	387	1	W18663	Fragmented human NF-H	9.51e+01
44	70	24.4	554	1	W46873	Bacillus thuringiensis	9.51e+01
45	70	24.4	642	1	W05519	HCMV Toledo strain U11	9.51e+01

ALIGNMENTS

RESULT 1
 ID W62836 standard; Protein; 33 AA.
 AC W62836;
 DT 27-OCT-1998 (first entry)
 DE Zee mays antimicrobial protein.
 OS antimicrobial protein; infestation; control.
 KW Zee mays.
 PN W09827805-A1.
 PD 02-JUL-1998.
 PE 22-DEC-1997; AU0874.
 PR 20-DEC-1996; AU-004275.
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.
 PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
 DR WPI; 98-377279/32.
 PT Novel anti-microbial protein from e.g. Macadamia integrifolia -
 useful for controlling microbial infestations of plants or mammals
 PS Disclosure; Page 60; 96pp; English.
 CC The sequence is that of an antimicrobial protein which can
 be used to control microbial infestations in plants and mammalian
 CC animals.
 SQ Sequence 33 AA:

Query Match 100.0%; Score 287; DB 1; Length 33;
 Best Local Similarity 100.0%; Pred. No. 3.17e-18;
 Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 RSGRGECRROCLRRHGGPWEYDPCMRRCRRG 33
 QY 1 RSGRGECRROCLRRHGGPWEYDPCMRRCRRG 33
 RESULT 2
 ID W62835 standard; Protein; 593 AA.
 AC W62835;
 DT 27-OCT-1998 (first entry)
 DE Zee mays antimicrobial protein.
 OS antimicrobial protein; infestation; control.
 KW Zee mays.
 PN W09827805-A1.
 PD 02-JUL-1998.
 PE 22-DEC-1997; AU0874.
 PR 20-DEC-1996; AU-004275.
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.
 PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
 DR WPI; 98-377279/32.
 PT Novel anti-microbial protein from e.g. Macadamia integrifolia -
 useful for controlling microbial infestations of plants or mammals

PS Claim 1: Page 58-60; 96pp; English.
CC The sequence is that of an antimicrobial protein which can
CC be used to control microbial infestations in plants and mammalian
CC animals.
SQ Sequence 593 AA;

Query Match 100.0%; Score 287; DB 1; Length 593;
Best Local Similarity 100.0%; Pred. No. 3.17e-18;
Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 561 RSGRGCRCRCRRHGGPWTQECMRRCRRG 593
OY 1 RSGRGCRCRCRRHGGPWTQECMRRCRRG 33

RESULT 3
ID R21079 standard; Peptide; 35 AA.
AC R21079:
DT 09-APR-1992 (first entry)
DE Antimicrobial maize peptide, CMIII.
KW Maize; CMIII; corn; pathogen.
OS Zea mays.
PN EP-465009-A.
PD 08-JAN-1992.
PF 05-JUN-1991; 305064.
PR 05-JUN-1990; US-536127.
PI (PION-) PIONEER HI-BRED INT.
PI Duvick JP, Rood TA, Rao AG;
DR WPI: 92-010214/02.
PT Use of maize seed peptide CMIII and DNA encoding it - for killing
PT or inhibiting plant pathogenic microorganisms.
PS Example 2: Page 5; 21pp; English.
CC The peptide (Seq ID NO 1) was purified from public corn variety B73
CC and propriety corn variety MH18. It is basic and has a total
CC mol. wt. of 3900 daltons. The peptide sequence was used to design
CC probes which were used to screen a maize genomic or cDNA library.
CC The isolated CMIII gene can be used to prepare an expression vector
CC for prodn. of recombinant CMIII for use in controlling plant patho-
CC genic organisms.
CC See also Q20272 and 3.
SQ Sequence 35 AA;

Query Match 93.7%; Score 269; DB 1; Length 35;
Best Local Similarity 97.0%; Pred. No. 1.63e-16;
Matches 33; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 RSGRGCRCRCRRHGGPWTQECMRRCRRG 33
OY 1 RSGRGCRCRCRRHGGPWTQECMRRCRRG 33

RESULT 4
ID W62828 standard; Protein; 666 AA.
AC W62828:
DT 27-OCT-1998 (first entry)
DE Macadamia integrifolia antimicrobial protein.
KW antimicrobial protein; infestation; control.
OS Macadamia integrifolia.
FH Key Location/Qualifiers
FT Peptide 1..28
FT /note="signal peptide"
FT Protein 29..666
FT /note="mature protein"
PN W09827805-A1.
PD 02-JUL-1998.
PF 22-DEC-1997; AU0874.
PR 20-DEC-1996; AU-004275.
PA (RETR-) COOP RES CENT. TROPICAL PLANT PATHOLOGY.
PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR WPI: 98-377279/32.
DR N-PSDB: V42310.
PT Novel anti-microbial protein from e.g. Macadamia integrifolia -
PT useful for controlling microbial infestations of plants or mammals

PS Claim 1: Page 34-36; 96pp; English.
CC The sequence is that of an antimicrobial protein which can
CC be used to control microbial infestations in plants and mammalian
CC animals.
SQ Sequence 666 AA;

Query Match 39.4%; Score 113; DB 1; Length 666;
Best Local Similarity 44.4%; Pred. No. 2.95e-02;
Matches 12; Conservative 7; Mismatches 7; Indels 1; Gaps 1;

Db 128 OCKHRCOR-ETEPHMTQOCRCRR 153
OY 6 ECRRCRRHGGPWTQECMRRCRR 32

RESULT 5
ID W62830 standard; Protein; 625 AA.
AC W62830:
DT 27-OCT-1998 (first entry)
DE Macadamia integrifolia antimicrobial protein.
KW antimicrobial protein; infestation; control.
OS Macadamia integrifolia.
FH Key Location/Qualifiers
FT Peptide 1..28
FT /note="signal peptide"
FT Protein 29..666
FT /note="mature protein"
PN W09827805-A1.
PD 02-JUL-1998.
PF 22-DEC-1997; AU0874.
PR 20-DEC-1996; AU-004275.
PA (RETR-) COOP RES CENT. TROPICAL PLANT PATHOLOGY.
PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR WPI: 98-377279/32.
DR N-PSDB: V42316.
PT Novel anti-microbial protein from e.g. Macadamia integrifolia -
PT useful for controlling microbial infestations of plants or mammals
PS Claim 1: Page 43-45; 96pp; English.
CC The sequence is that of an antimicrobial protein which can
CC be used to control microbial infestations in plants and mammalian
CC animals.
SQ Sequence 625 AA;

Query Match 38.0%; Score 109; DB 1; Length 625;
Best Local Similarity 44.0%; Pred. No. 6.47e-02;
Matches 11; Conservative 10; Mismatches 3; Indels 1; Gaps 1;

Db 43 OCKRRC-ROESDPDQOYCKORCK 66
OY 6 ECRRCRRHGGPWTQECMRRCRR 30

RESULT 6
ID W62829 standard; Protein; 666 AA.
AC W62829:
DT 27-OCT-1998 (first entry)
DE Macadamia integrifolia antimicrobial protein.
KW antimicrobial protein; infestation; control.
OS Macadamia integrifolia.
FH Key Location/Qualifiers
FT Peptide 1..28
FT /note="signal peptide"
FT Protein 29..666
FT /note="mature protein"
PN W09827805-A1.
PD 02-JUL-1998.
PF 22-DEC-1997; AU0874.
PR 20-DEC-1996; AU-004275.
PA (RETR-) COOP RES CENT. TROPICAL PLANT PATHOLOGY.
PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR WPI: 98-377279/32.
DR N-PSDB: V42311.
PT Novel anti-microbial protein from e.g. Macadamia integrifolia -

PT useful for controlling microbial infestations of plants or mammals
PS Claim 1; Page 39-41; 96pp; English.
CC The sequence is that of an antimicrobial protein which can
CC be used to control microbial infestations in plants and mammalian
CC animals.
SQ Sequence 666 AA;

Query Match 37.3%; Score 107; DB 1; Length 666;
Best Local Similarity 44.4%; Pred. No. 9.56e-02;
Matches 12; Conservative 7; Mismatches 7; Indels 1; Gaps 1;

Db 128 QCGERC-QRHEPRHMQCQCRR 153
OY 6 ECRROCLRHRHGGQPWETOECMRRCRR 32

RESULT 7
ID W62832 standard; Protein; 590 AA.

AC W62832;
DT 27-OCT-1998 (first entry)
DE Gossypium hirsutum antimicrobial protein.
KM antimicrobial protein; infestation; control.
OS Gossypium hirsutum.
PN W09827805-A1.
PD 02-JUL-1998.
PF 22-DEC-1997; AU0874.
PR (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.
PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;
DR WPI; 98-377279/32.
PT Novel anti-microbial protein from e.g. Macadamia integrifolia -
PT useful for controlling microbial infestations of plants or mammals
PS Claim 1; Page 49-51; 96pp; English.
CC The sequence is that of an antimicrobial protein which can
CC be used to control microbial infestations in plants and mammalian
CC animals.
SQ Sequence 590 AA;

Query Match 30.7%; Score 88; DB 1; Length 590;
Best Local Similarity 37.0%; Pred. No. 3.61e+00;
Matches 10; Conservative 10; Mismatches 6; Indels 1; Gaps 1;

Db 126 ECQDHC-HQEQREPKQCVCRCRR 151
OY 6 ECRROCLRHRHGGQPWETOECMRRCRR 32

RESULT 8
ID W00726 standard; Protein; 188 AA.

AC W00726;
DT 30-NOV-1996 (first entry)
DE Vascular endothelial growth factor-like protein SOM175-e6.
KM Vascular endothelial growth factor; VEGF; SOM175-e6; neuron;
OS astroglial proliferation.
FH key.
FT peptide 1.21
FT /label= Sig_peptide

PI W09627007-A1.
PD 06-SEP-1996.
PF 22-FEB-1996; AU0094.
PR 02-MAR-1995; AU-001457.
PR 20-NOV-1995; AU-006647.
PR 22-DEC-1995; AU-007274.
PA (AMRA-) AMRAD OPERATIONS PTY LTD.
PI Grimmond S, Hayward NK, Larsson C, Nordenskjold M;
PI Weber G;
DR WPI; 96-412774/41.
DR N-PSDB; T33611.

PT New growth factor related to vascular endothelial growth factor -
PT useful for inducing astroglial proliferation and promoting neuronal
PT survival
PS Claim 12; Page 42-43; 113pp; English.

CC Splice variants (W00726-28) of the human vascular endothelial growth
CC factor-like polypeptide SOM175 (see also W00725) are products of
CC CDNA clones (see also T33611-13) respectively lacking exon 6, exons
CC 6+7, and exon 4 of the SOM175 gene (see also T33610). They show at
CC least 1 of the properties of SOM175 including the ability to induce
CC proliferation of vascular endothelial cells, to interact with
CC flt-1/flk-1 receptors, and to induce cell migration, cell survival
CC and/or an increase in intracellular levels of alkaline phosphatase.
CC Recombinant SOM175 proteins can be used to induce astroglial
CC proliferation and to promote neural survival and/or proliferation.
SQ Sequence 188 AA;

Query Match 30.3%; Score 87; DB 1; Length 188;
Best Local Similarity 40.6%; Pred. No. 4.35e+00;
Matches 13; Conservative 7; Mismatches 9; Indels 3; Gaps 3;

Db 137 SPRPLCPR-CTQHHQ-RP-DPRTRCRRRRS 165
OY 2 SGRGECRROCLRHRHGGQPWETOECMRRCRRG 33

RESULT 9
ID W04829 standard; Protein; 188 AA.

AC W04829;
DT 28-APR-1997 (first entry)
DE Fibrosarcoma vascular endothelial growth factor-B167.
KM Endothelial cell; proliferation; vascular endothelial growth factor; VEGF;
KM VEGF; endothelium; mesodermal cell; cationic dimer; tissue regeneration;
KM vascular permeability factor; cell mitogen; angiogenesis; cell growth;
KM embryonic development; wound healing; tissue reorganisation; antibody;
KM cancer; metastatic risk; tumour cell; mouse.
OS Homo sapiens.
PN W09626736-A1.
PD 06-SEP-1996.

PF 01-MAR-1996; U02957.
PR 01-MAR-1995; US-387651.
PR 06-JUN-1995; US-469427.
PR 06-DEC-1995; US-569063.
PA (LUDW-) LUDWIG INST CANCER RES.
PI (UYHE-) UNIV HELSINKI LICENSING LTD OY.
PI Alitalo K, Eriksson U, Olofsson B, Pajusola K;
DR WPI; 96-412582/41.
DR N-PSDB; T37913.

PT Vascular endothelial growth factor VEGF-B proteins - useful to
PT accelerate angiogenesis in wound healing, also related nucleic acid
PT and antibodies for cancer diagnosis
PS Claim 18; Page 59; 107pp; English.
CC W04824-W04831 represent the vascular endothelial growth factor (VEGF)
CC proteins of the invention, which promote endothelial or mesodermal cell
CC proliferation. VEGF is also a glycosylated cationic dimer, and is
CC sometimes referred to as vascular permeability factor (VPF). VEGF has
CC diverse effects, depending on the specific histological context in which it
CC is found. VEGF is a potent endothelial cell mitogen, and directly
CC contributes to induction of angiogenesis in vivo by promoting endothelial
CC cell growth during normal embryonic development, wound healing, and
CC tissue regeneration/reorganisation. The VEGF proteins of the invention
CC share the angiogenic and other properties of VEGF, but are distributed
CC and expressed in tissues differently to VEGF. The proteins can therefore
CC be used to accelerate angiogenesis in wound healing. Antibodies against
CC the proteins can be used for inhibiting angiogenesis. The antibodies can
CC also be used diagnostically to quantitatively detect VEGF-B. Primers
CC complementary to the coding sequences for the proteins of the invention
CC can also be used to detect VEGF-B coding sequences. Quantification of
CC VEGF-B in cancer biopsy specimens may be useful as an indicator of
CC metastatic risk. VEGF-B expression in a cell can be retarded using
CC antisense sequences direct against the VEGF coding sequences, this is
CC especially useful in retarding VEGF expression in tumour cells.
SQ Sequence 188 AA;

Query Match 30.3%; Score 87; DB 1; Length 188;
Best Local Similarity 40.6%; Pred. No. 4.35e+00;
Matches 13; Conservative 7; Mismatches 9; Indels 3; Gaps 3;

CC the corresponding "bis" sequence and includes an ORF. The amino acid
 CC sequence deduced from the complementary sequence is not a GlcNAc
 CC receptor. See Q31005-Q31018.
 SQ Sequence 132 AA;

Query Match 29.3%; Score 84; DB 1; Length 132;
 Best Local Similarity 36.7%; Pred. No. 7.60e+00;
 Matches 11; Conservative 6; Mismatches 10; Indels 3; Gaps 3;

Db 27 GRSPCRHPCAPROSOCAPMGP-CAQ-CWR 54
 QY 3 GRGECRRQCLRRH-EGOPMETQECMRCCR 31

RESULT 14
 ID R28989 standard; Protein; 215 AA.
 AC R28989;
 DT 06-APR-1993 (first entry)
 DE Encoded by GlcNAc receptor complementary sequence.
 KW Thyroid N-acetyl-glucosamine receptor; carbohydrate recognition domain;
 KW CRD; thyroid adenocarcinoma; lysosome; endosome; TGR-CL1; TGR-CL5;
 KW Hashimoto's disease; Basedow's disease.
 OS Homo sapiens.
 FH key Location/Qualifiers
 FT misc_difference 50
 FT region /note="corresponds to codon TGS"
 FT 82..127
 FT /note="overlap"
 PN MO9219733-A.
 PD 12-NOV-1992.
 PE 30-APR-1992; F00396.
 PR 03-MAY-1991; FR-005478.
 PA (CNRS) CENT NAT RECH SCI.
 PI Blanck O, Couraget J, Miguelis R, Thibault V;
 DR MPI: 92-398860/48.
 DR N-PSB; R28989.
 PT New thyroid N-acetyl-glucosamine receptor proteins - and
 PT fragments, antibodies and encoding nucleic acids, for therapeutic
 PT or diagnostic use
 PS Disclosure: Fig 3; 75pp; French.
 CC clones TGR-CL1b5 and TGR-CL5b5 (see Q31005 and Q31007,
 CC respectively) were isolated by immunoscreening a Western blot derived
 CC from a cDNA bank of normal human thyroid cDNA in lambda gtl.
 CC Denatured GlcNAc receptor was purified from porcine thyroids and
 CC used to raise polyclonal antibodies in rabbits for use in
 CC immunoscreening. Sequences TGR-CL1 and TGR-CL5 are complementary to
 CC the corresponding "bis" sequences and partially overlap one another.
 CC The amino acid sequence deduced from the combined overlapping
 CC sequences is not a GlcNAc receptor.
 CC See Q31005-Q31018.
 SQ Sequence 215 AA;

Query Match 29.3%; Score 84; DB 1; Length 215;
 Best Local Similarity 36.7%; Pred. No. 7.60e+00;
 Matches 11; Conservative 6; Mismatches 10; Indels 3; Gaps 3;

Db 108 GRSPCRHPCAPROSOCAPMGP-CAQ-CWR 135
 QY 3 GRGECRRQCLRRH-EGOPMETQECMRCCR 31

RESULT 15
 ID W86221 standard; protein; 179 AA.
 AC W86221;
 DT 16-FEB-1999 (first entry)
 DE Human VEGF-3 truncated fragment 4.
 KW VEGF; VEGF; vascular endothelial growth factor; VEGF-related protein;
 KW recombinant; truncated; gene therapy; angiogenesis; cardiac ischemia;
 KW coronary; collateral vessel development; cell growth; migration; heart;
 KW lower limb ischemia; stroke; peripheral vascular disease; intestine;
 KW wound healing; skin; vascular permeability.
 OS Homo sapiens.
 PN MO9849300-AA.

PD 05-NOV-1998.
 PF 20-APR-1998; U07801.
 PR 25-APR-1997; US-842984.
 PA (COLL-) COLLATERAL THERAPEUTICS.
 PI Bohlen P;
 DR MPI: 99-009426/01.

PT New truncated vascular endothelial growth factor-related protein
 PT subunits - lack part of the N-terminal sequence, used to stimulate
 PT angiogenesis, e.g. for treating heart disease and ischemia
 PS Claim 5; Fig 2C; 113pp; English.
 CC The invention relates to truncated VRP (vascular endothelial growth
 CC factor (VEGF)-related protein) subunits that have at least one amino acid
 CC N-terminal to the first Cys of the core sequence deleted. Host cells
 CC transfected or transfected with expression vectors containing nucleic
 CC acids encoding the truncated VRP subunits are used to produce the
 CC truncated proteins recombinantly. The truncated VRP subunits, optionally
 CC expressed from gene therapy vectors, have in vivo and in vitro angiogenic
 CC activity and are used to stimulate angiogenesis, particularly coronary
 CC collateral vessel development in cases of cardiac ischemia; to stimulate
 CC endothelial cell growth and migration in vitro; to treat heart disease;
 CC to treat ischemia (e.g. cardiac, chronic coronary or chronic lower limb
 CC ischemia; stroke and peripheral vascular disease); to promote healing of
 CC wounds (of skin or intestines), and to increase vascular permeability.
 CC Sequences W86218 to W86221 represent truncated fragments of VEGF-3.
 SQ Sequence 179 AA;

Query Match 27.9%; Score 80; DB 1; Length 179;
 Best Local Similarity 40.6%; Pred. No. 1.58e+01;
 Matches 13; Conservative 6; Mismatches 10; Indels 3; Gaps 3;

Db 128 SPRPLCPR-CTOHHC-P-DPTRCRCRRRS 156
 QY 2 GRGECRRQCLRRH-EGOPMETQECMRCCR 33

Search completed: Sat May 13 08:52:30 2000
 Job time : 7 secs.

